

## Remarks

**[0001]** Herein, the "Action" or "Office Action" refers to the non-final Office Action dated February 25, 2008.

**[0002]** Applicant respectfully traverses the rejections, and requests reconsideration and allowance in light of the comments and amendments contained herein. Accordingly, Applicant requests that the rejections be withdrawn and that the case be passed along to issuance. Claims 1-39 are presently pending. Claims 1, 3, 18, 22, 29, 33, 36, and 38 are amended herein. Support for the amendments can be found at least at pages 1-13 and Figs. 7-15 the Specification "as-filed." No claims are canceled herein. No new claims are added herein.

## **Substantive Claim Rejections**

### **35 USC § 102 Claim Rejections**

**[0003]** Claims 1-39 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0221311 to Dow et al. (hereinafter, "Dow") (*Office Action*, p.2).

**[0004]** Applicant respectfully traverses the rejections, and requests reconsideration and allowance in light of the comments and amendments contained herein. Accordingly, Applicant requests that the rejections be withdrawn and that the case be passed along to issuance.

## **Instant Application: Navigation Along One or More Arbitrary Axes**

**[0005]** The instant application pertains to navigation technology. To bring this forth explicitly, claim 1 is currently amended to recite:

providing a set of viewer selectable attributes, the set of attributes comprising attributes which are each descriptive of a different aspect of a television program, wherein each attribute of the set corresponds to a combinable navigation context to generate a navigable sequence of television programs

Current programming guides are generally organized by a time/channel axes, where a channel represents a specific sequence of programs over time (see, e.g., instant application at page 1, line 14 to page 4, line 1). However, in an "everything on demand" environment, this type of organization proves difficult to navigate. In contrast, the instant application provides a solution in the form of a combinable navigation context that allows for navigation along one or more arbitrary axes (e.g., at least one axis independent of the original broadcast sequence). Further, such an approach can alleviate a need for users to initiate explicit search commands.

**[0006]** For example, Fig. 4 of the instant application shows an exemplary axis 400 configured by episode sequence, allowing a user to navigate among programs represented on the episode axis. In this example, the user watching the October 6th episode would be able to navigate to the September 29th episode (e.g., a "previous" key) or the October 13th episode (e.g., a "next" key). Hence, "arbitrary" axes can include an episode order axis, an actor axis, a star rating axis, etc.

## **Summary of Dow**

**[0007]** In the background section, Dow describes that viewers often use their digital video recorders (DVRs) for skipping past the commercials when viewing a recorded program, and indicates that a "skip forward feature" of DVRs which causes a 30 second forward skip has proven to be a fairly effective tool for quickly navigating past commercials which often run about 30 seconds (*Dow*, [0002]-[0010]). Dow indicates that although the skip forward method of avoiding commercials during playback has proven popular with DVR users, improved methods of detecting commercials and automatically skipping them are desirable (*Dow*, [0010]).

**[0008]** In light of this need, Dow describes a system for navigation of video content which has been recorded from a television broadcast (*Dow*, [0011]). More specifically, Dow describes that a DVR's memory can include a commercial indexer and a program navigator (*Dow*, [0043]). The commercial indexer detects events of the audio and/or video stream data which correlate to transitions in the content of the video data - such as breaks between commercials and program content (*Dow*, [0044]). The indexing logic used by the system is conventional logic for time indexing the digital video data stream (*Dow*, [0071]). Dow describes that the program navigator can include navigational features which use the time-based index of the stored video content (*Dow*, [0045]). The program navigator provides logic for skipping commercials in a recorded video program based upon the events which have been identified by the commercial indexer (*Dow*, [0045]).

**[0009]** Dow describes that using a video playback device (*e.g.*, a DVR) embodying its system, a viewer can select to skip all of the commercials and view only the program (*Dow*, [0011] and [0045]). One benefit of skipping the commercials is that the total running time for the program is substantially shortened (*Dow*, [0055]).

**[0010]** With regard to programming guides, Dow indicates that the DVR processes guide information which allows navigation among content from a broadcast system, as well as content that has already been captured by the DVR (*Dow*, [0039]). The guide data describes the broadcast or on-demand video programming available to the DVR, and can include program titles, times, and other descriptive data (*Dow*, [0062], [0086] and Fig.4). Dow describes that the term content guide (programming guide) includes both channel guides and playback guides (*Dow*, [0039]). The channel guide displays available content from which individual pieces of content can be selected for recording (*Dow*, [0039]). For example, the channel guide may list numerous broadcast television programs, and the user may select one of the programs for recording (*Dow*, [0039]). The playback guide displays content that is stored or immediately storable by the DVR (*Dow*, [0039]).

**[0011]** Dow describes a graphical interface which can be used to enable commercial skipping navigation (*Dow*, [0062] and Fig.4). The user interface is provided as a menu overlay which provides one or more ways for viewing a previously recorded program (*Dow*, [0066]). For example, when the "play" button of the menu overlay is selected the program is

played from where the viewer recently left off, when a "play from the beginning" button is selected the program begins playing from the beginning, and when a "commercial skip toggle" is on the commercial skip feature is enabled and the commercials are skipped (*Dow*, [0066] and Fig.4). The menu overlay can be provided over a content guide/programming guide. The illustrated content guide includes a header 402, a categories area with several category listings 406a-e (*i.e.*, TV shows, Sports, Comedy, Action, and Drama), and a content area with several listed programs 408a-f (*Dow*, [0062] and Fig.4). A header area 402 displays a currently selected category, in the example "TV Shows". Accordingly, the content area lists TV shows which are available during the time period (*Dow*, [0062] and Fig.4). In the illustrated example provided in *Dow*, the user has selected "The Simpsons" 408d and a display area 404 provides addition information regarding the currently selected entry (*Dow*, [0065] and Fig.4). In the example, the additional information provided is, "32 minutes guaranteed at medium quality. The Simpsons: Homer eats a forbidden doughnut despite the threat of eternal damnation (TV-PG). Recorded from channel 5 (FOX) Thursday, 5/22 at 11:30 pm" (*Dow*, [0065] and Fig.4).

**[0012]**      **Claim 1** as amended recites a method, comprising:

providing a set of viewer selectable attributes, the set of attributes comprising attributes which are each descriptive of a different aspect of a television program, wherein each attribute of the set corresponds to a combinable navigation context to generate a navigable sequence of television programs;

selecting attributes from the set;

logically combining the navigation contexts which correspond to the selected attributes;

querying a database of television programming metadata for television program identifiers associated with the combined navigation contexts; and

presenting a sequence of television programs associated with the identifiers for navigation.

**[0013]**      In order for Dow to anticipate this claim, Applicant submits that Dow must disclose each and every element and feature of the claim and that they must be arranged in the same manner as the claim. Applicant respectfully submits that Dow does not disclose all of the claimed elements and features of claim 1.

**[0014]**      For example, Dow does not show or disclose a method comprising, “providing a set of viewer selectable attributes, the set of attributes comprising attributes which are each descriptive of a different aspect of a television program, wherein each attribute of the set corresponds to a combinable navigation context to generate a navigable sequence of television programs”, as recited in claim 1 (Emphasis Added).

**[0015]** Instead, Dow describes that a viewer can select to skip all of the commercial segments and to view only the recorded program (*Dow*, [0011] and [0045]). Dow says nothing about providing a set of attributes from which a viewer can make selections, or that the set of attributes comprise attributes which are each descriptive of a different aspect of a television program. Further, since Dow says nothing about providing such a set of attributes, it also does not describe that, "each attribute of the set corresponds to a combinable navigation context to generate a navigable sequence of television programs", as recited in claim 1 (Emphasis Added).

**[0016]** Further, Dow does not show or disclose, "selecting attributes from the set" and then "logically combining the navigation contexts which correspond to the selected attributes", as recited in claim 1.

**[0017]** At best, Dow describes placing an overlay over a typical content guide/programming guide. The overlay simply provides selectable options to play the program from where the viewer recently "left off", to play the program begins playing from the beginning, and to skip commercials during playback of the program (*Dow*, [0066] and Fig.4). However, the program guide described in Dow is similar to the program guides described in the background of Applicant's Specification. In other words, the programs described in Dow are provided in a conventional grid (See Fig. 4 of Dow) and navigation is done according to the channel axis model in which navigation of both programs and their respective program guide information follows the conventional channel axis versus time model.

Dow does not describe "logically combining the navigation contexts which correspond to the selected attributes", as recited in claim 1.

**[0018]** Still further, Dow says nothing about, "querying a database of television programming metadata for television program identifiers associated with the combined navigation contexts" and then "presenting a sequence of television programs associated with the identifiers for navigation", as recited in claim 1. Since Dow does not logically combining the navigation contexts (which correspond to the selected attributes), it can not describe performing a query with the combined navigation contexts.

**[0019]** Accordingly, claim 1 is allowable over Dow for at least these reasons, and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0020]** **Claims 2-17** are allowable by virtue of their dependency upon claim 1 (either directly or indirectly). Additionally, some or all of claims 2-17 may be allowable over Dow for independent reasons. For example:

**[0021]** **Claim 3** as amended recites, "[t]he method as recited in claim 1, wherein the set of attributes includes an actor attribute and a director attribute, and wherein logically combining the navigation contexts which correspond to the selected attributes comprises logically combining navigation contexts which correspond to the actor attribute and the director attribute to generate a single navigational axis."



**[0022]** Dow does not show or disclose the recited limitation. In fact, Dow says nothing about logically combining such navigation contexts. Instead, Dow describes that the viewer can select a "play" button which causes the DVR to play a program from where the viewer recently left-off, the viewer can select a "play from the beginning" button which causes the DVR to play the program from the beginning, and the user can select a "commercial skip option which causes the DVR to skip commercials when playing the program (*Dow*, [0066] and Fig.4). However, Dow says nothing about, "logically combining the navigation contexts which correspond to the selected attributes comprises logically combining navigation contexts which correspond to the actor attribute and to the director attribute to generate a single navigational axis ", as recited in claim 3.

**[0023]**      **Claim 18** as amended recites a method, comprising:

defining a query for television programming metadata, wherein when the query is launched, the query uses one or more attribute values from a television program context from which the query was launched to produce a list of television program identifiers associated with the one or more attribute values, wherein the one or more attribute values are selected by a viewer from among a set of attribute values which are each descriptive of a different aspects of a television program; arranging the television programming metadata into a data structure wherein attribute values are associated with program identifiers; and providing a user interface, wherein a navigation control selects whether to launch the query and if launched, designates one or more attribute values from the television program context.

**[0024]**      In order for Dow to anticipate this claim, Applicant submits that Dow must disclose each and every element and feature of the claim and that they must be arranged in the same manner as the claim. The Office rejects claim 18 for reasons similar to those set forth in the rejection of claims 1 (*Office Action*, p.7). Applicant respectfully submits that Dow does not disclose all of the claimed elements and features of claim 18.

**[0025]**      For example, Dow does not describe, "defining a query for television programming metadata, wherein when the query is launched, the query uses one or more attribute values from a television program context from which the query was launched to produce a list of television program identifiers associated with the one or more attribute values, wherein the one or more attribute values are selected by a viewer from

among a set of attribute values which are each descriptive of a different aspects of a television program", as recited in claim 18. Applicant respectfully submits that based on reasoning similar to that discussed above in response to the rejection of claim 1, Dow does not disclose all of the claimed elements and features of claim 18. For the sake of brevity, Applicant has not repeated the arguments.

**[0026]** Accordingly, claim 18 is allowable over Dow for at least these reasons, and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0027]** **Claims 19-28** are allowable by virtue of their dependency upon claim 18 (either directly or indirectly). Additionally, some or all of claims 19-28 may be allowable over Dow for independent reasons.

**[0028]**      **Claim 29** as amended recites multi-axis television navigation system, comprising:

        a server for storing and accessing digital television programming content;

        a navigation control for changing a currently playing television program to a television program provided by the server and for selecting links to launch predefined queries, wherein each predefined query queries a database based on television program attributes selected by a viewer and returns a navigation axis comprising a list of program identifiers of programs corresponding to a value for the television program attributes selected;

        a means for storing television program metadata in a database,

        a means for arranging the program metadata in a relational schema,

        a means for defining and storing the pre-defined queries; and

        a means for embedding links to the pre-defined queries in logically associated metadata for a currently playing television program.

**[0029]**      In order for Dow to anticipate this claim, Applicant submits that Dow must disclose each and every element and feature of the claim and that they must be arranged in the same manner as the claim. The Office rejects claim 29 based on similar rationale as that set forth in the rejection of claim 1 (*Office Action*, p.10). Applicant respectfully submits that Dow does not disclose all of the claimed elements and features of claim 29.

**[0030]**      For example, Dow does not describe, "a navigation control for changing a currently playing television program to a television program

provided by the server and for selecting links to launch predefined queries, wherein each predefined query queries a database based on television program attributes selected by a viewer and returns a navigation axis comprising a list of program identifiers of programs corresponding to a value for the television program attributes selected”, as recited in claim 29.

**[0031]** Applicant respectfully submits that based on reasoning similar to that discussed above in response to the rejection of claim 1, Dow does not disclose all of the claimed elements and features of claim 29. For the sake of brevity, Applicant has not repeated the arguments.

**[0032]** Accordingly, claim 29 is allowable over Dow for at least these reasons, and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0033]** **Claims 30-32** are allowable by virtue of their dependency upon claim 29 (either directly or indirectly). Additionally, some or all of claims 30-32 may be allowable over Dow for independent reasons.

**[0034]**     **Claim 33** as amended recites a television navigation engine, comprising:

        a query engine to find identifiers in the database corresponding to predefined queries, wherein a predefined query returns a navigational axis from the database, wherein a navigational axis is a list of identifiers of television programs;

        a user interface to associate launch of one or more of the predefined queries with selection of one or more attributes descriptive of a currently playing television program or currently displayed metadata of the television program, and to receive the one or more attributes which are selected by a viewer;

        an axis cache to store the list of identifiers returned by one or more predefined queries; and

        a navigation controller associated with the user interface to select the attributes launching the predefined queries and to play television programs corresponding to the identifiers on the list.

**[0035]**     In order for Dow to anticipate this claim, Applicant submits that Dow must disclose each and every element and feature of the claim and that they must be arranged in the same manner as the claim. The Office rejects claim 33 for reasons similar to those set forth in the rejection of claims 1 (*Office Action*, p.12). Applicant respectfully submits that Dow does not disclose all of the claimed elements and features of claim 33.

**[0036]**     For example, Dow does not describe, "a user interface to associate launch of one or more of the predefined queries with selection of one or more attributes descriptive of a currently playing television program or currently displayed metadata of the television program, and to receive

the one or more attributes which are selected by a viewer", as recited in claim 33. Applicant respectfully submits that based on reasoning similar to that discussed above in response to the rejection of claim 1, Dow does not disclose all of the claimed elements and features of claim 33. For the sake of brevity, Applicant has not repeated the arguments.

**[0037]** Accordingly, claim 33 is allowable over Dow for at least these reasons, and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0038]** **Claims 34-35** are allowable by virtue of their dependency upon claim 33 (either directly or indirectly). Additionally, one or both of claims 34-35 may be allowable over Dow for independent reasons.

**[0039]**     **Claim 36** as amended recites multi-axis database schema, comprising:

instructions for arranging a database of television programming metadata into indices facilitating predefined queries;

wherein one or more links contextually associated with attributes of a television program call the predefined queries, wherein the attributes have been selected by a viewer from among a set of attributes, and wherein each attribute of the set corresponds to a combinable navigation context which can be used for generating a navigable sequence of television programs,

wherein the predefined queries return a list of identifiers from the database corresponding with one or more of the attributes,

wherein the identifiers correspond to television programs,

wherein the television programs on the list are played in turn as accessed by a television channel navigation means.

**[0040]**     In order for Dow to anticipate this claim, Applicant submits that Dow must disclose each and every element and feature of the claim and that they must be arranged in the same manner as the claim. The Office rejects claim 36 for reasons similar to those set forth in the rejection of claims 1 (*Office Action*, p.13). Applicant respectfully submits that Dow does not disclose all of the claimed elements and features of claim 36.

**[0041]**     For example, Dow does not describe, " wherein the attributes have been selected by a viewer from among a set of attributes, and wherein each attribute of the set corresponds to a combinable navigation context which can be used for generating a navigable sequence of



television programs", as recited in claim 36. Applicant respectfully submits that based on reasoning similar to that discussed above in response to the rejection of claim 1, Dow does not disclose all of the claimed elements and features of claim 36. For the sake of brevity, Applicant has not repeated the arguments.

**[0042]** Accordingly, claim 36 is allowable over Dow for at least these reasons, and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0043]** **Claim 37** is allowable by virtue of its dependency upon claim 36. Additionally, claim 36 may be allowable over Dow for independent reasons.

**[0044]**      **Claim 38** as amended recites one or more computer readable media containing instructions that are executable by a computer to perform actions comprising:

defining television navigation axes according to attributes of television programs;

receiving a viewer selection of attributes from among a set of attributes, wherein each attribute selected is descriptive of a different aspect of a currently playing television program;

linking a predefined database query for one of the axes to a television program having the attributes that defines the axis;

providing a database of television program identifiers associated with the attributes;

providing a means for selecting and launching the predefined database query, wherein the query returns a list of program identifiers of television programs having the attribute that defines the axis.

**[0045]**      In order for Dow to anticipate this claim, Applicant submits that Dow must disclose each and every element and feature of the claim and that they must be arranged in the same manner as the claim. The Office rejects claim 38 for reasons similar to those set forth in the rejection of claims 1 (*Office Action*, p.14). Applicant respectfully submits that Dow does not disclose all of the claimed elements and features of claim 38.

**[0046]**      For example, Dow does not describe, " receiving a viewer selection of attributes from among a set of attributes, wherein each attribute selected is descriptive of a different aspect of a currently playing television program" and "linking a predefined database query for one of the axes to a television program having the attributes that defines the

axis", as recited in claim 38. Applicant respectfully submits that based on reasoning similar to that discussed above in response to the rejection of claim 1, Dow does not disclose all of the claimed elements and features of claim 38. For the sake of brevity, Applicant has not repeated the arguments.

**[0047]** Accordingly, claim 38 is allowable over Dow for at least these reasons, and Applicant respectfully requests that the §102 rejection be withdrawn.

**[0048]** **Claim 39** is allowable by virtue of its dependency upon claim 36. Additionally, claim 39 may be allowable over Dow for independent reasons.

### **Dependent Claims**

**[0049]** In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each dependent claim where its base claim is allowable.

## **Conclusion**

**[0050]** All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Office is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

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